

REMARKS

Applicants request reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks.

Claims 1, 2, 4, 6-34, 50-55, and 60-74 are pending in the present application. Claims 1, 68, and 72 are the independent claims.

No claims have been amended by the present request.

Summary of Personal Interview

Applicants wish to express their gratitude to the Examiner for the courtesies extended by the Examiner to their undersigned representative during the personal interview conducted on January 11, 2007. During that interview, the "switch" features of various claims were discussed and contrasted with the cited art. The Office acknowledged differences between the claimed switch and the allegedly corresponding elements of the cited art but indicated that one of ordinary skill in the art would have been motivated to modify the disclosures of the cited art to render the "switch" features obvious.

Traversals

Claims 72-74 stand objected to as being substantial duplicates of claims 1, 2, and 67. In response, attached hereto is an attachment highlighting the differences between independent claim 1 and independent claim 72.

Favorable consideration is respectfully requested.

Claims 1, 2, 4, 6-13, 22-27, 29-34, 50-55, and 65-74 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 10-149564 (JP '564) in view of JP 07-320287 (JP '287). Claims 1, 2, 14-21, 29-34, and 66-74 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,597,642 (Iijima et al.) or, in the alternative, under § 103(a) as being obvious in view of JP '287. Claims 6-8, 9-13, 22-27, and 50-55 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '287 in view of U.S. Patent No. 5,963,515 (Shindo). All rejections are respectfully traversed.

Independent claim 1 recites, inter alia, that a light detecting device includes a switch selectively outputting first and second detection signals to the first and second detecting portions [of a signal processor], respectively

Independent claim 68 corresponds generally to independent claim 1 and recites similar features in method form.

Independent claim 72 recites, inter alia, a light detection device ...[that] includes a switch selectively outputting a first detection signal and a second detection signal [a signal processor].

However, Applicants respectfully submit that none of the asserted citations teach or suggest at least the aforementioned features. Thus, without conceding the propriety of the asserted citation, it is respectfully submitted that the asserted combinations are likewise deficient, even in view of the knowledge of one of ordinary skill in the art.

The Office Action relies on JP '287 and Ijima to provide the necessary disclosure of the aforementioned features of independent claims 1, 68, and 72. These patent documents, however, respectively disclose a change means 36 (JP '287) and a selection circuit 302 (Ijima et al.) that:

1. receives signals that differ from those of the claimed switches;
2. outputs signals that differ from those of the claimed switches;
3. outputs signals to components that differ from that of the claimed switches; and
4. is not located in a light detection device as are the claimed switches.

These differences are discussed in turn.

- 1,2. The change means 36 of JP '287 and the selection circuit 302 of Ijima et al. both receive signals and output a signal that differ from those of the claimed switches.

A review of paragraph [0028] and Drawing 1 of JP '287 reveals that the change means 36 receives two tracking error signals (TEP and (TES) and selectively outputs one of the tracking error signals as a tracking error signal (TE). A review of Col. 8, lines 55-61 and FIG. 1 of Ijima et al. reveals that the selection circuit 302 receives tracking error signals and outputs a tracking error signal (TES).

In contrast to both the change means 36 of JP '287 and the selection circuit 302 of Ijima et al., independent claim 1, for example, recites a switch that receives and outputs detection signals used to detect tracking error detection.

3. The change means 36 of JP '287 and the selection circuit 302 of Ijima et al. both outputs signals to components that differ from the claimed switches.

A review of Drawing 1 of JP '287 reveals that the change means 36 is not disclosed to selectively output the tracking error signal (TE) to a signal processor. Indeed, JP'287 appears silent as to the destination of the output of the change means 36. A review of Fig. 1 of Ijima et al.

reveals that the selection circuit 302 delivers its only output to a tracking servo circuit 303. And, it is submitted that this output destination is necessary in view of the input to the selection circuit as well as the function thereof.

In contrast to both the change means 36 of JP '287 and the selection circuit 302 of Ijima et al., independent claim 1, for example, recites a switch that outputs detection signals ... [to detecting portions of a signal processor].

4. A review of Drawing 1 of JP '287 and Fig. 1 of Ijima et al. show that neither the change means 36 nor the selection circuit 302 are in a light detection device, as recited in independent claim 1, for example.

Response to Rejection under 35 U.S.C. § 102

It is respectfully submitted that the aforementioned differences between the aforementioned features of the claimed invention and Ijima et al. are fatal to the rejection of the same under 35 U.S.C. § 102.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 102 are respectfully requested.

Response to Rejections under 35 U.S.C. § 103

To establish a prima facie case of obviousness there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. This burden is satisfied when the references expressly or impliedly suggest the claimed invention or the examiner presents "a convincing line of reasoning" as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. Thus, when the motivation to combine/modify the teachings of the references is not immediately apparent, it is the duty of the Office to provide a convincing line of reasoning explaining why the combination of the teachings is proper. (See Section 2142 of the Manual of Patent Examining Procedure (MPEP)).

The Office Action has not disputed these differences in the functions and locations of the elements of JP '287 and Ijima et al. that allegedly render the aforementioned features of

independent claim 1 obvious. Rather, the Office contends that the necessary modification of these disclosures would be obvious to one ordinarily skilled in the art. Thus, it is the Office's contention that one of ordinary skill in the art would have been motivated to make the suggested modifications of the change means 36 of JP '287 and a selection circuit 302 of Ijima et al.

Stated another way, the Office contends that one of ordinary skill in the art would have been motivated to modify structures that:

receive signals that differ from those of the claimed switches;

output signals that differ from those of the claimed switches;

output signals to components that differ from that of the claimed switches; and

are not located in a light detection device as are the claimed switches

so as to meet the aforementioned features of independent claims 1, 68, and 72. Applicants respectfully disagree, however, and submit: that the evidence of record does not support a conclusion that the required motivation existed; and that one of ordinary skill in the art would not have been motivated to modify JP '287 and Ijima et al. in the manner suggested by the Office Action, for at least the following reasons.

Firstly, it is respectfully submitted since neither JP '287 nor Ijima et al. expressly or impliedly suggest the asserted modifications, a "convincing line of reasoning" is required. (See MPEP 2142). Indeed, the change means 36 of JP '287 and the selection circuit 302 of Ijima et al. differ from the aforementioned features in structure and/or function in at least the aforementioned four ways. Further, the asserted combination of Ijima et al. and JP '287 both teach a switch with these differences. Thus, it is submitted that it is incumbent upon the Office to set forth a convincing line of reasoning as to why an ordinarily skilled artisan, without the benefit of Applicants' disclosure, would have modified the change means 36 of JP '287 or the selection circuit 302 of Ijima et al. so that these components: (1) function in the same manner as the claimed switches; and (2) are located in the same location as the claimed switches. This specific motivation, in a convincing form, has not yet been made of record.

Further, the mere fact that modifications of the prior art to meet the claimed invention would have been well within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. And, the mere fact

that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. (MPEP 2143.01).

Secondly, Applicants submit that there is no motivation to modify the alleged switches of JP '287 and Ijima et al. at least because the asserted modifications would change principles of operation and because the claimed features provide at least one advantage not recognized by the cited art.

In the present case, the asserted modifications to the change means 36 of JP '287 and the selection circuit 302 of Ijima et al. would change the principles of operation of these documents. MPEP 2143.01 (VI) instructs that when such changes result from a proposed modification, no suggestion to make the modification exists.

For example, the change means 36 of JP '287 is necessarily located downstream of light detectors and amplifies because it is expressly taught to receive and to selectively output a tracking error signal. Moving this switch to a light detector would make it impossible to selectively output signal Tep or Tes, both generated downstream of the light detectors.

As another example, the selection circuit 302 of Ijima et al. is necessarily located downstream, of error detection circuits because it is expressly taught to receive plural error detection signals and to selectively output one to a tracking servo circuit 303. Moving this switch as suggested by the Office Action would change the principle on which Ijima et al. is premised because the circuit would not receive these inputs and the output destination is necessary in view of the inputs to the selection circuit as well as the function thereof.

Thus, one of ordinary skill would not have been motivated to make the asserted modifications.

The absence of the necessary motivation is not surprising, since as explained at paragraph [0046] of Applicants' disclosure, the specific arrangement expressly recited by the aforementioned features provides an advantage not recognized by the cited art. Specifically, locating the switch as claimed minimizes the number of output terminals of a light detection device circuit. This advantage, it is submitted, is not recognized by any of the asserted citations.

In sum, the alleged switches of JP '287 and Ijima et al. differ in several ways in function and location. The Office has not provided the required "convincing line of reasoning" as to why one of ordinary skill would have been motivated to make the asserted modifications. No motivation can be said to be present because the asserted modifications change principles of operation. Lastly, the claimed switches cannot be said to be obvious since they provide

advantages not recognized by the cited art.

Applicants respectfully submit that Shindo adds nothing that would remedy the aforementioned deficiencies.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

In view of the foregoing, Applicants respectfully submit that the independent claims patentably define the present invention over the citations of record. Further, the dependent claims should also be allowable for the same reasons as their respective base claims and further due to the additional features that they recite. Separate and individual consideration of the dependent claims is respectfully requested.

Applicants submit that this Request for Reconsideration After Final Rejection clearly places the subject application in condition for allowance. This Amendment was not earlier presented because Applicants believed that the prior Amendment placed the subject application in condition for allowance. Accordingly, entry of the instant Amendment as an earnest attempt to advance prosecution and reduce the number of issues is requested under 37 C.F.R. § 1.116.

Applicants believe that the present Amendment is responsive to each of the points raised by the Examiner in the Official Action. However, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to such matters.

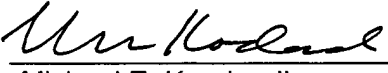
There being no further outstanding objections or rejections, it is submitted that the present application is in condition for allowance. An early action to that effect is courteously solicited.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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ATTACHMENT

1. An optical recording and reproducing apparatus, comprising:

an optical pickup including

an optical splitting device which splits light emitted from a first light source into a source main light beam and at least four sub-light beams which are symmetrical with respect to the main light beam, and irradiates the split source main and sub-light beams on a recording medium, and

a light detection device which receives a reflected main light beam and reflected sub-light beams reflected by the recording medium, and outputs detection signals corresponding to the received reflected main and sub-light beams, so as to detect tracking error signals in a three-beam method and at least one of a push-pull method and an improved push-pull method; and

a signal processor which receives the detection signals output by the light detection device and detects a first tracking error signal in the three-beam method and a second tracking error signal in one of the push-pull method and the improved push-pull method,

wherein the sub-light beams which are symmetrical with respect to the main light beam comprise first two sub-light beams and second two sub-light beams, the first two sub-light beams being closer to the main light beam than the second two sub-light beams,

wherein the signal processor comprises:

a first detection portion which detects the tracking error signal in the push-pull method or the improved push-pull method from second detection signals of the second two sub-light beams and main detection signals of the main light beam; and

a second detection portion which detects the tracking error signal in the three-beam method from first detection signals of the first two sub-light beams, and

wherein the light detecting device includes a switch selectively outputting the first and second detection signals to the first and second detecting portions, respectively.

72. An optical recording and reproducing apparatus comprising:

an optical pickup including

an optical splitting device which splits a light into a main light beam and at least four sub-light beams which are symmetrical with respect to the main light beam, and irradiates the split source main and source sub-light beams, the sub-light beams include first two sub-light beams and second two sub-light beams, the first two sub-light beams being closer to the main light beam than the second two sub-light beams, and

a light detection device which receives reflected main and reflected sub-light beams reflected from a recording medium, outputs detection signals corresponding to the received reflected main and reflected sub-light beams, and includes a switch selectively outputting a first detection signal and a second detection signal; and

a signal processor which receives the detection signals, detects a first tracking error signal in a three-beam method and a second tracking error signal in a push-pull method or an improved push-pull method, and includes

a first detection portion which detects the tracking error signal in the push-pull method or the improved push-pull method from the second detection signals of the second two sub-light beams and main detection signals of the main light beam; and

a second detection portion which detects the tracking error signal in the three-beam method from the first detection signals of the first two sub-light beams, and

wherein the the first and second detection signals are respectively output to the first and second detecting portions.